TITLE: METHOD AND APPARATUS FOR STRAIN-STRESS SENSORS AND SMART SKIN FOR AIRCRAFT AND SPACE VEHICLES

INVENTOR(S): BENJAMIN F. DORFMAN

APPLICATION SERIAL NO: 033957-004 **SHEET 1 of 10**

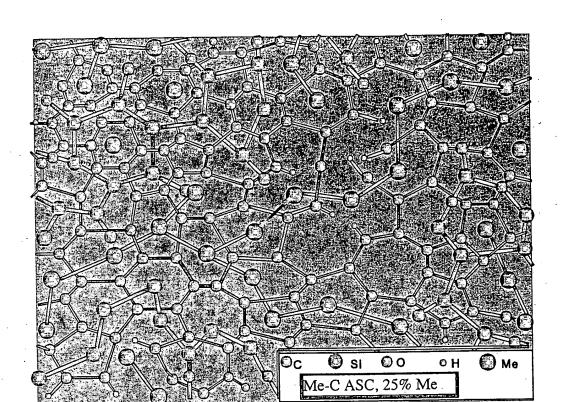


Figure 1, A (PRIOR MET)

TITLE: METHOD AND APPARATUS FOR STRAIN-STRESS SENSORS AND SMART SKIN FOR AIRCRAFT AND SPACE VEHICLES

INVENTOR(S): BENJAMIN F. DORFMAN

SHEET 2 of 10 APPLICATION SERIAL NO: 033957-004

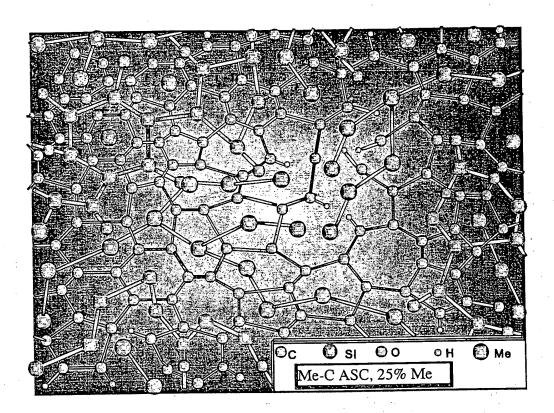


Figure 1, B.

TITLE: METHOD AND APPARATUS FOR STRAIN-STRESS SENSORS AND SMART SKIN FOR AIRCRAFT AND SPACE VEHICLES

INVENTOR(S): BENJAMIN F. DORFMAN APPLICATION SERIAL NO: 033957-004

SHEET 3 of 10

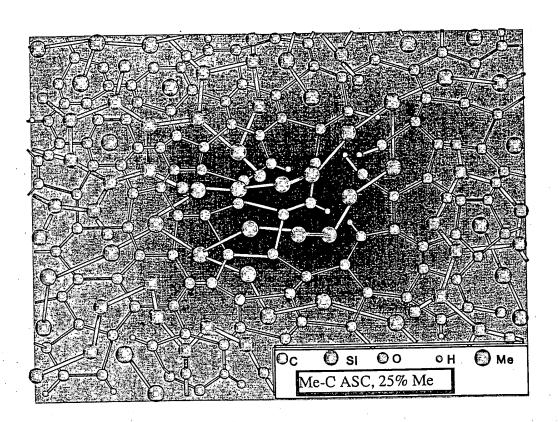


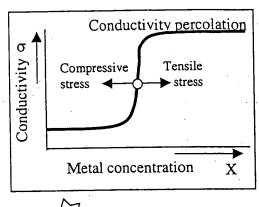
Figure 1, C.

TITLE: METHOD AND APPARATUS FOR STRAIN-STRESS SENSORS AND SMART SKIN

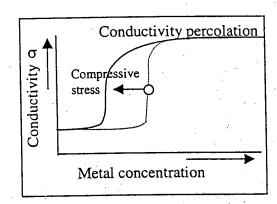
FOR AIRCRAFT AND SPACE VEHICLES

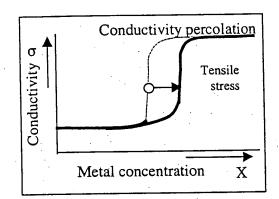
INVENTOR(S): BENJAMIN F. DORFMAN

SHEET 4 of 10 APPLICATION SERIAL No: 033957-004









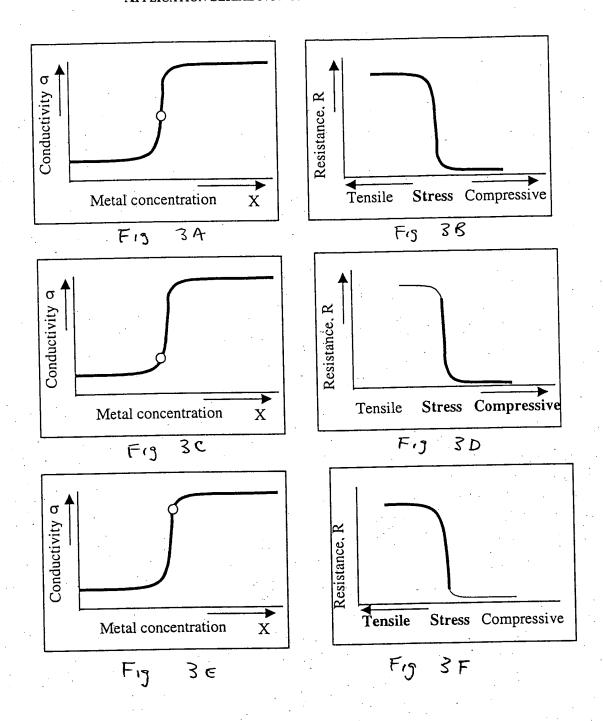
-2C

TITLE: METHOD AND APPARATUS FOR STRAIN-STRESS SENSORS AND SMART SKIN

FOR AIRCRAFT AND SPACE VEHICLES

INVENTOR(S): BENJAMIN F. DORFMAN APPLICATION SERIAL NO: 033957-004

SHEET 5 of 10

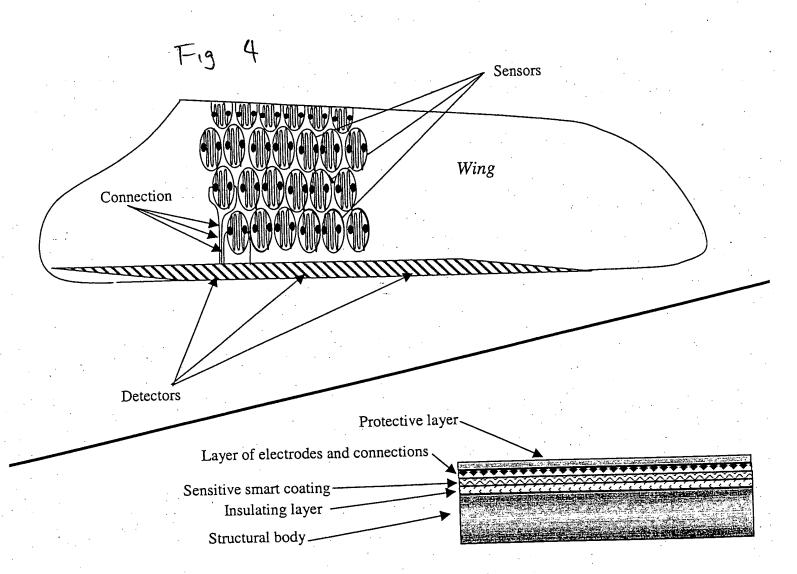


TITLE: METHOD AND APPARATUS FOR STRAIN-STRESS SENSORS AND SMART SKIN

FOR AIRCRAFT AND SPACE VEHICLES

INVENTOR(S): BENJAMIN F. DORFMAN

APPLICATION SERIAL NO: 033957-004 SHEET 6 of 10



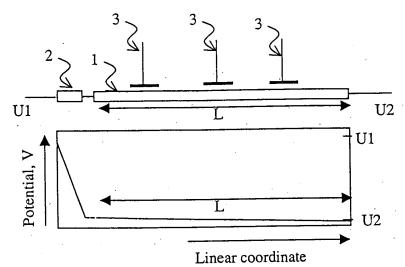
Cross-section

Fig 5

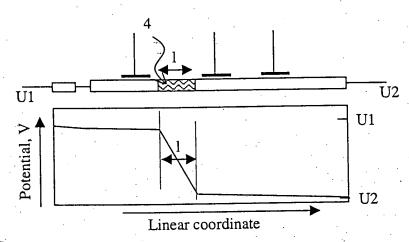
 $TITLE: \ \mbox{Method and Apparatus for Strain-Stress Sensors and Smart Skin For Aircraft and Space Vehicles}$

INVENTOR(S): BENJAMIN F. DORFMAN APPLICATION SERIAL No: 033957-004

SHEET 7 of 10



a



b

To Legend to figure 6:

1 - percolation transition sensor; 2 - external resistor; 3 - capacitors; 4 - stressed area (tensile stress) with increased resistivity.

 $TITLE\colon$ Method and Apparatus for Strain-Stress Sensors and Smart Skin For Aircraft and Space Vehicles **INVENTOR(S):** BENJAMIN F. DORFMAN APPLICATION SERIAL No: 033957-004 SHEET 8 of 1 Fig 7A TOP VIEW SENSING LAYER 54BSTRATI

APPLN. FILING DATE: FILED HEREWITH

COATING

Fig 7 B

CROSS SECTION
THRU A-A

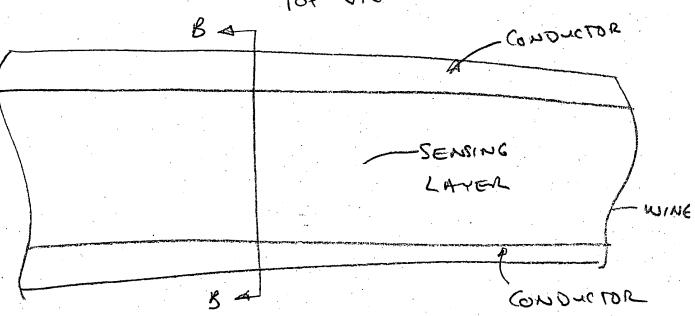
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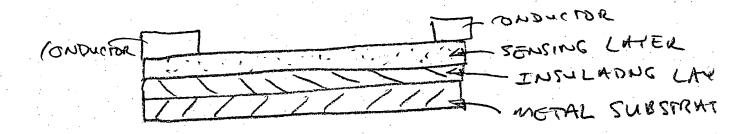
FOR AIRCRAFT AND SPACE VEHICLES

INVENTOR(S): BENJAMIN F. DORFMAN

SHEET 9 of 10 APPLICATION SERIAL NO: 033957-004

TOP VIEW





SB CROSS SECTION THRU B-B

 $TITLE\colon$ Method and Apparatus for Strain-Stress Sensors and Smart Skin For Aircraft and Space Vehicles

INVENTOR(S): BENJAMIN F. DORFMAN

APPLICATION SERIAL NO: 033957-004 SHEET 10 of 10

Fig 9A

